

Patient Satisfaction with Cataract Surgery in a Rural Eye Care Center in Bangladesh

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Abstract

Purpose: To assess the satisfaction level of the beneficiaries who receive cataract surgery from a rural level of health center. **Methods:** Cross Sectional Observational study was conducted in a rural eye hospital in Norshingdi for a period of the year from 1st July 2009 to 30 June 2010. We included 150 patients with the complaints of gradual painless loss of vision. Among them 102 cases of cataract patient were studied in this study. **Results:** Among the 102 cataract cases male were 60 cases and female were 42 cases. Most of patients (72 cases, 70.59%) were involved in 61- 80 years. The mean ages of the patients are 71 years. 64 cases (62.74%) were unilateral cataract and 38 cases (37.26%) were bilateral cataract. Mature cataracts were 58 cases (56.86%) and hyper mature cataract were 36 cases (35.30%) among the study subjects. Educational qualification was studied. Illiterate were 21.56%, 1 to 5 class were 29.41% cases, 6 to 10 class were in 26.47% cases, SSC were in 11.76 percent cases, HSC were in 8.82% cases and Graduate were 1.96% cases. Older age was one of the important risk factor. 88.23% cases were above 50 years. Monthly income of the patients was increased following visual restoration of cataract surgery. Before cataract surgery visual acuity was $\leq 6/60$ in 91 cases where as after 1 month of surgery visual acuity was 6/6 to 6/18 in 92 cases. **Conclusion:** visual outcome after cataract surgery was excellent to eliminate avoidable blindness. Aging process is responsible risk factor for development of age related cataract. Patient was satisfied following restoration of vision after cataract surgery. Patient's monthly income was increased after surgery. The meticulous cataract surgery no doubt reduces familial, social and national burden.

Key words: Cataract, Cataract surgery, Visual outcome, Age.

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I. Introduction

Most of the estimated 20 million people live in the rural areas of the developing countries that are blind with cataracts [1-3]. Cataract blindness is curable through cataract surgery. Of all health interventions It is one of the most successful and cost effective and forms an integral part of global strategy for prevention of avoidable blindness [1,2].

Cataract outreach program aims at the delivery of cataract surgical service to persons with cataracts in their communities making it available, accessible and affordable. In addition, this system reduces the stress, the risk of travel outside a familiar environment to which the patient is used to and the extra financial burden of an escort on the already impoverished cataract patient [4].

Over the past 20 years, with improved technologies and better surgical outcomes, the rate of cataract surgery has increased significantly in Bangladesh. Patient satisfaction is a very subjective concept which is difficult to measure. Surveying the experiences and views of patients can provide useful information. Achievement of service provision is a good indicator of patient satisfaction. Measuring the patient satisfaction is a very important issue that will help very much in improving the service provided to patients and improve the level of satisfaction [5].

The impact of cataract surgery in any population can be assessed by the visual outcome. A good outcome advertises the program and increases uptake of cataract surgery in most communities. On the contrary a poor visual outcome may have a negative impact on the uptake of this program. A good outcome is defined (WHO classification) as visual acuity of 6/6 - 6/18 in 80-90% of patients, borderline outcome of < 6/18 - 6/60 in less than 5% of patients and poor outcome of < 6/60 in less than 5% patients [2,3].

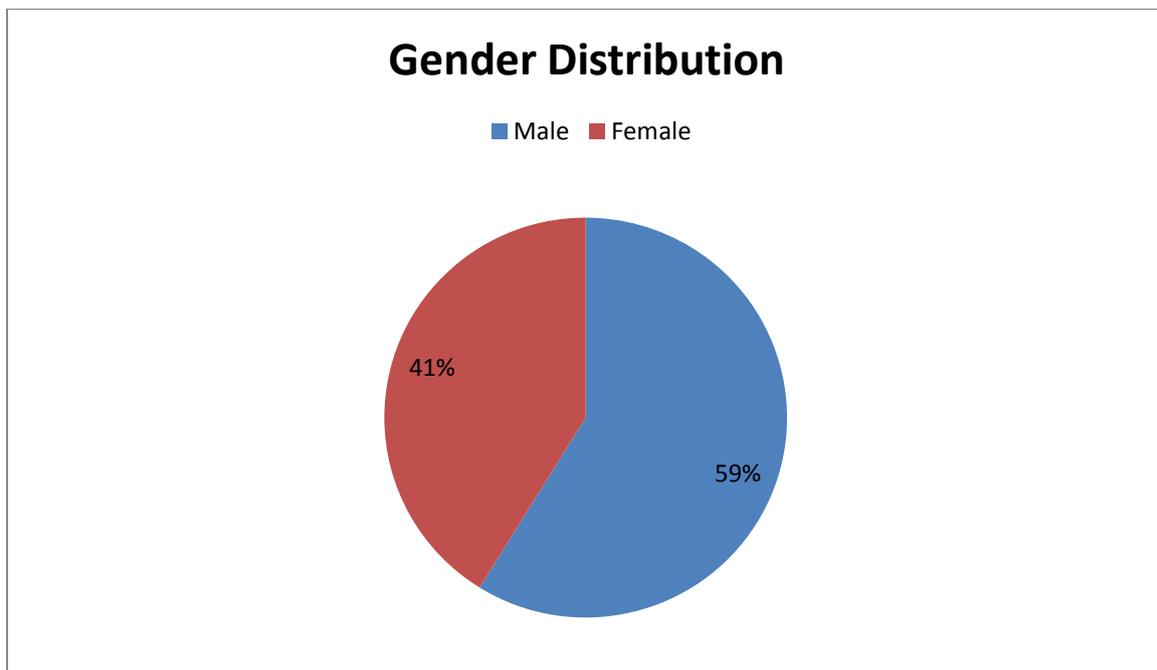
A growing body of research indicates that visual acuity (VA) alone is an inadequate measure of visual impairment [6]. In any society, a patient's visual function (VF), which is a measurement of the important vision dependent tasks that he or she can do, is a more important measure of the need for cataract surgery than VA alone [7]. The impact on VF is related to patient perceived outcomes and has become a significant factor in the evaluation of the outcome of surgical interventions. Therefore, both VA and functional status after surgery need to be studied to know the outcome. However, although patients may benefit from an increase in VA and VF after cataract surgery, their satisfaction may be limited. Assessment of patient satisfaction gives additional information on the result of surgery and is, therefore, of further importance in evaluating the surgical outcome [6]. This study was carried out with the aim of finding out the effect of cataract on the quality of life of patients with reference to VA and VF and to assess the patient satisfaction with the surgical outcome in a rural area of Bangladesh. We attempt to evaluate patient satisfaction with the cataract surgery service and identify any areas for improvement, determination of patient satisfaction with referral, out-patient consultation, pre-assessment clinic, surgery and post-operative care, also to report patients' comments relating to improvement in service provision.

II. Methodology

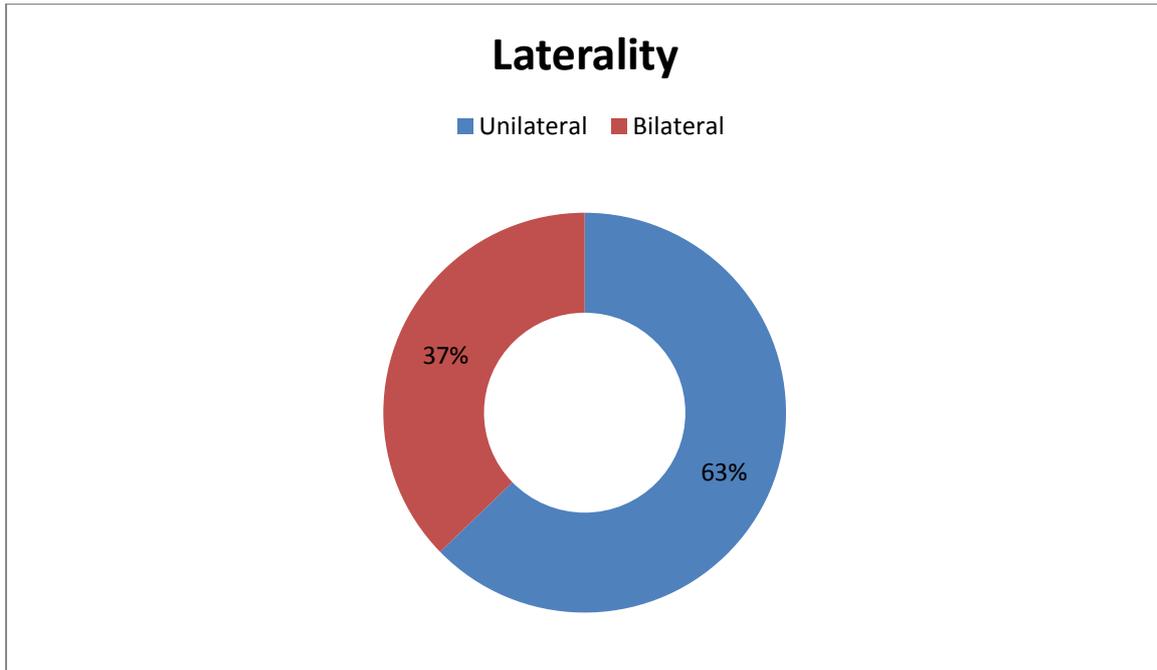
A Cross Sectional Observational study was undertaken for 102 patients underwent cataract surgery at Abdul Hye Chowdhury Eye Hospital, Belabo, Norshingdi, Bangladesh. The response rate was 100%. We collected our data from the postoperative follow up sheet for a period of 12 months and Vision-related Quality of Life was measured through self-reported monthly income, employment status, occupation and the degree of difficulty in performing vision-dependent activities (e.g., reading, climbing stairs). Small Incision Cataract Surgery (SICS) technique was used in all of the cataract extractions. The Statistical Package for the Social Sciences, version 13 (SPSS Inc, Chicago, IL, USA) was used for statistical analysis.

III. Results

This study included 102 patients; the response rate was 100%. Among them, Male was 60 cases (41%) and female was 42 cases (59%) of 102 cataract patients.



Most of the patients (72 cases, 70.59%) were involved in 61- 80 years of age group. The mean age of the patients is 71 years. Older age was one of the important risk factor. 88.23% cases were above 50 years. Unilateral age related cataract was 64 (62.75%) and bilateral was 38 (37.25%). Age related cataract was found in 140 eyes of 102 patients.



Mature cataracts were 58 cases (56.86%) and hyper mature cataract were 36 cases (35.30%) among the study subjects. Educational qualification was studied (Table-1).

Table-1: Distribution of Educational Qualification of the study subjects

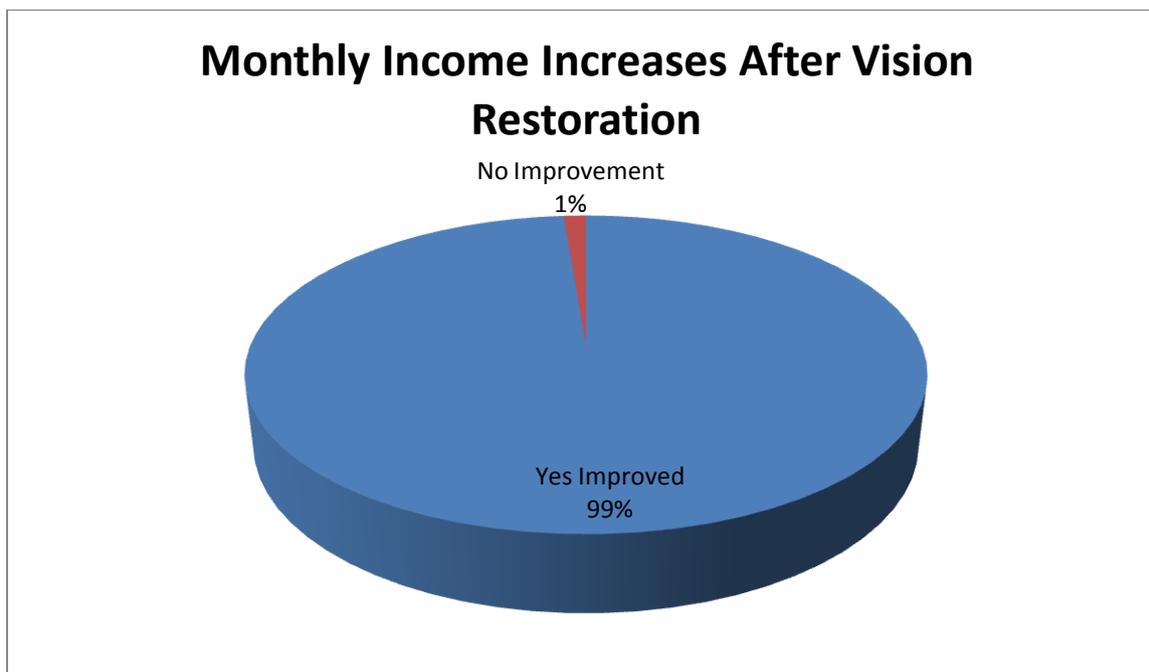
Educational qualification	No. of the cases	Percentage
Illiterate	22	21.56%
1 to 5 class	30	29.43%
6 to 10 class	27	26.47%
Secondary School Certificate	12	11.76%
High School Certificate	9	8.82%
Graduate	2	1.96%
Total	102	100%

The visual status was measured into 5 categories. Visual outcome was assessed preoperatively and 1 month after cataract surgery. Visual acuity was worse than 6/18 in all patients and better than 6/18 in 90% eyes after one month of cataract surgery (Table-2).

Table-2: Status of visual outcome of the patients after cataract surgery

Visual Acuity	Before Surgery	1 month after surgery
6/6 to 6/18	0	92(90.2%)
<6/18 to 6/24	1(0.98%)	7(6.86%)
<6/24 to 6/36	2(1.96%)	3(2.94%)
<6/36 to 6/60	8(7.84%)	0
< 6/60	91(89.22%)	0
Total	102(100%)	102(100%)

Monthly income of the patients was increased following visual restoration of cataract surgery



IV. Discussion

Visual impairment could cause poverty through reduced employment opportunities. Therefore we expect a stronger relationship between cataract and poverty. Poverty may also cause visual impairment through restricted access to cataract surgery. An impact of blindness on reduced employment or income has been observed in Guinea and India. A belief that blindness reduces the employment opportunities of household members is widespread, but so far there is limited supportive evidence [8].

Inability to afford cataract surgery is cited as the major barrier to the uptake of surgery in the surveys conducted in Kenya, the Philippines, and Bangladesh [8]. In Several studies, poverty has been found to be a barrier to accessing cataract surgery services in South-east Asia [9,10]. In addition, acceptance of available cataract surgery services was also discouraged by poor surgery outcomes. [10,11]. Given the important positive outcomes of cataract surgery found in this study, increased efforts are needed to encourage greater acceptance of offered cataract surgery services. Such services should ideally be of high quality and provided regularly and tailored to the needs of impoverished communities [10].

Most of our patients were elderly people. Thus there is a complication to investigations of the relationship between cataract and poverty, as the individuals are likely to be facing multiple disabilities [8]. However male were predominant than female and in rural area male were the main earning member in Bangladesh. In this study we found that Persons who underwent successful cataract surgery reported better visual acuity and about 90% had VA-6/6 to 6/18. A Successful cataract surgery also increased the likelihood to be engaged in an income earning activity. Therefore 99% candidates reported a higher monthly household income after improvement of vision by cataract surgery. These findings emphasize the need for high quality cataract surgery services, as unsuccessful cataract surgery may not only lead to no improvements in vision and Vision-related Quality of Life but may also deprive patients of a possible future reduction of poverty at the household level.

Overall, our findings are in line with other studies, where blindness, in particular from cataract, and poverty have been found to be intricately linked [11,12,13,14]. However, there is a dearth of literature regarding the non-ocular impact of cataract surgery in low income countries [14].

Previous studies have reported that cataract surgery may lead to an improvement in Vision-related Quality of Life [15], per capita expenditure [11], and an increase in time spent on productive activities [16,17]. These non-ocular outcomes of cataract surgery are reflected by our findings of an increase in Vision-related Quality of Life, monthly household income and the likelihood to be engaged in income generating activities after cataract surgery.

Strengths

Strengths of our study include the provision of uniform cataract surgery of high quality with IOL implantation, with good surgical outcomes, detailed visual acuity data, little attrition to follow up. Moreover, being embedded into routine service provision of Abdul Hye Chowdhury Eye Hospital, our sample is

representative of the communities of Norshingdi and nearby area. Economic data were collected at the individual level, rather than inferred from district or other regional approximations such as postcodes or census data which increases accuracy.

Limitation

A relatively small sample size and a relatively short follow up to assess the long term impact of cataract surgery on social status.

V. Recommendations

- Implementation of system to convey reason for and degree of clinic delays.
- Reconsider the timing of first post-operative visit, as patient comments indicate that it can be very difficult to attend in the early morning.
- Providing all the relevant information for the patient prior to surgery.
- Ensure all patients receive written information at clinic visit, to minimize patient anxiety.
- Contact scheme for patient information/support.

VI. Conclusion

Patient satisfaction is an important health outcome and understanding both the domains of satisfaction as well as their relative importance to patients is necessary to improve the overall quality of patient care. Meeting the doctor, presenting all relevant information and giving printed information are very important factors in improving the patient's satisfaction with cataract surgery.

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